

Remarks

Applicants hereby elect group II, claims 24-30 and claim 41; without prejudice to file divisionals on the non-elected groups.

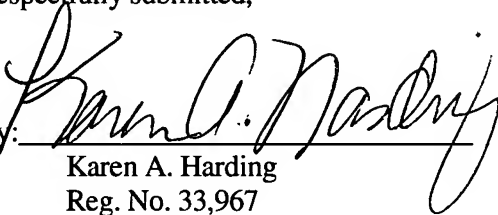
Applicant has amended claim 1 to specify that the binding polymer has a molecular weight of about 7,000 to about 100,000. Support for this amendment may be found at page 5, line 25. Support for new claim 42 may be found at page 5, lines 1-10.

Examiner has rejected claims 24-36 and 41 as anticipated by or obvious in view of Thrakrar (US 6,337,040). Thrakrar neither discloses nor suggests binding polymers comprising 2-hydroxyethyl methacrylate and any specific molecular weight. Clearly, the claims as amended are novel in view of Thrakrar.

The claims as amended are also patentable in view of Thrakrar. Attached herewith is a Declaration of Douglas Vanderlaan showing that polyHEMA having a molecular weight greater than the range recited in the present claims is not soluble in the solvents disclosed and used in the Examples in Thrakrar. Thrakrar is silent as to the molecular weight of the binding polymer. Clearly, the claims are patentable in view of Thrakrar.

Withdrawal of the rejections and allowance of the claims as amended is respectfully requested.

Respectfully submitted,

By:   
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Dated: July 16, 2004



Docket No. VTN-571

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Frank Molock, et al.  
Serial No. : 10/027,579  
Filed : December 20, 2001  
Title: COLORANTS FOR USE IN TINTED CONTACT LENSES AND  
METHODS FOR THEIR PRODUCTION  
Art Unit : 1732  
Examiner : Mathieu Vargot

Honorable Commissioner of Patents  
Alexandria, VA 22313

DECLARATION UNDER 37 CFR 1.132

I, Douglas Vanderlaan, PhD, declare as follows:

1.1 I am currently a Senior Scientist for Johnson & Johnson Vision Care, Inc. I received a Bachelor of Science in Chemistry from Calvin College, in 1979, and a Doctorate in Organic Chemistry from the Florida State University in 1984. I was a Research Fellow in the field of Organic Chemistry at the University of Michigan from 1984-1985. I was a Research Chemist at SWS Silicones from 1985-1986 and Senior Chemist at Reichhold Chemicals from 1986-1989. I have been a scientist for Johnson & Johnson Vision Care, Inc since 1989. In my tenure with Johnson & Johnson Vision Care, Inc. I have been engaged in research and study of materials for contact lenses

1.2 I reviewed the Examples of US 6,337,040 ("US `040") and tried to dissolve poly(2-hydroxyethylmethacrylate) (polyHEMA) in the solvents used in the Examples of US `040. No molecular weight was specified in US `040 for the binding polymers. The only molecular weight listed for polyHEMA in the 2000-2001 Aldrich Catalog was 300,000. A copy of page 1375 from the 2000-2001 Aldrich Catalog showing the polyHEMA entry is attached hereto.

1.3 I combined 2.0 g of poly(2-hydroxyethylmethacrylate) (300,000 M<sub>v</sub>, from Aldrich Chemicals) with 8.0 g 1-butanol and mixed for 3 hours at room temperature. The polymer showed no signs of dissolving and did not appear to be swelling.

1.4 I combined 3.0 g of poly(2-hydroxyethylmethacrylate) (300,000 M<sub>v</sub>, from Aldrich Chemicals) with 3.5 g 1-methoxy-2-propylacetate and 3.5 g cyclohexanone and mixed for 3 hours at room temperature. The polymer showed no signs of dissolving and did not appear to be swelling.

1.5 I combined 3.5 g of poly(2-hydroxyethylmethacrylate) (300,000 M<sub>v</sub>, from Aldrich Chemicals) with 3.25 g cyclohexanone and 3.25 g methyl ethyl ketone and mixed for 3 hours at room temperature. The polymer showed no signs of dissolving and did not appear to be swelling.

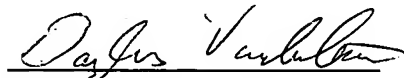
1.6 I combined 1.5 g of poly(2-hydroxyethylmethacrylate) (300,000 M<sub>v</sub>, from Aldrich Chemicals) with 8.5 g butoxy ethyl acetate and mixed for 3 hours at room temperature. The polymer showed no signs of dissolving and did not appear to be swelling.

1.7 None of the solvents used in the Examples of US '040 dissolved poly(HEMA) having a 300,000. Clearly US '040 did not appreciate the importance of molecular weight for binding polymers comprising poly(HEMA).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereof.

Inventor's Full Name

Douglas Vanderlaan, PhD

  
Signature

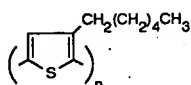
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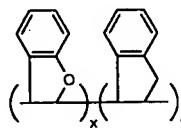
■ Polyhexylt ■

(ide) alcohol, ..... 2OH bp 119° n <sub>D</sub> 1.3160	5mL 25mL	\$ 15.90 43.00
(ide) alcohol, ..... 12(OCH <sub>2</sub> CH <sub>2</sub> ) <sub>2</sub> OPO <sub>3</sub> H <sub>2</sub>	5mL 25mL	15.90 43.00
(ide) monoalkylamide 18° d 1.700	5g 25g	15.90 43.00
(ide) ..... 3000 d 1.770 Fp none	5mL 25mL	15.90 43.00
2C(CH <sub>2</sub> ) <sub>4</sub> CO-]n ..... 14,200. Tm 55-65°	250g 1kg	19.30 53.70
12° d 1.090	100mL 250mL	17.00 34.00
00 cps 17° d 1.090	100g 250g	17.00 34.00
0-8,000 cps d 1.140 IRYMATOIR	100mL 250mL	17.70 32.10
..... 100mL 250mL	100mL 250mL	17.70 32.10
..... 100mL 250mL	100mL 250mL	17.70 32.10
lon 6/12 page 1240 16/9 page 1240 1-8] ..... 1.5340 d 1.100	250mL	20.30
10 page 1240 forms ..... 190°C/2.16kg, DIN ratio 20:80. Tg -65°, Tm	100g 250g	17.00 34.00
14-14-6] mp 33° ..... lity 2.0. Tm (DSC,	250g 1kg	21.30 58.80
3/4-adipic acid] diol ... (110°C) onality 2.1 125CH <sub>3</sub> -]n n <sub>D</sub> 1.4810.. TABLE LIQUID TOXIC Average M <sub>w</sub> ca.	250mL 1L 25g	20.50 56.50 101.90

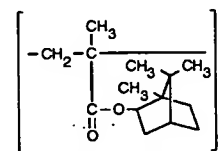
44,570-3 Poly(3-hexylthiophene-2,5-diyl), regioregular [104934-50-1] mp 238° ..... For the characterization and solid-state properties of this polymer, see <i>J. Am. Chem. Soc.</i> 1994, 117, 233. Solid. Greater than 98.5% head-to-tail regiospecific conformation. Average M <sub>w</sub> ca. 87,000 Product of Rieke® Metals, Inc.	1g	229.35
51,082-3 Poly(3-hexylthiophene-2,5-diyl), regiorandom [104934-50-1] ..... For solid state properties see <i>J. Am. Chem. Soc.</i> 1994, 117, 233 Red solid. Conducting polymer. 1:1 (head-to-head):(head-to-tail) linkages of regiomers Product of Rieke® Metals, Inc.	1g	229.35
49,709-6 Poly(4-hydroxybenzoic acid-co-ethylene terephthalate) [125300-07-4] ..... (-OC <sub>6</sub> H <sub>4</sub> CO-) <sub>x</sub> (-OCH <sub>2</sub> CH <sub>2</sub> O <sub>2</sub> CC <sub>6</sub> H <sub>4</sub> -4-CO-) <sub>y</sub> Liquid crystalline copolyester	100g	20.00
43,234-2 Poly(4-hydroxybenzoic acid-co-6-hydroxy-2-naphthoic acid) [70679-92-4] ..... (-OC <sub>6</sub> H <sub>4</sub> CO-) <sub>x</sub> (-OC <sub>10</sub> H <sub>6</sub> CO-) <sub>y</sub> mp 280° d 1.500 Liquid crystal random thermoplastic copolymer. Average M <sub>w</sub> >20,000. Reinforced with ca. 15% glass fiber	100g 500g	21.10 70.20
36,350-2 Poly(3-hydroxybutyric acid), natural origin [26063-00-3] [-COCH <sub>2</sub> CH(CH <sub>3</sub> )O-] <sub>n</sub> ..... R&S 1(2), 3163D T <sub>m</sub> 172°C (DSC). Biodegradable polymer	10g 100g	41.10 265.40
40,310-5 Poly(3-hydroxybutyric acid-co-3-hydroxyvaleric acid), natural origin ..... [80181-31-3] [-COCH <sub>2</sub> CH(CH <sub>3</sub> )O-] <sub>x</sub> [-COCH <sub>2</sub> CH(C <sub>2</sub> H <sub>5</sub> )O-] <sub>y</sub> [α] <sub>D</sub> +4.5° (c=0.1, CHCl <sub>3</sub> ) R&S 1(2), 3163E PHV content 5 wt. % Produced via a controlled fermentation process using microorganisms. Biodegradable polymer	10g 100g	32.40 207.80
40,311-3 Poly(3-hydroxybutyric acid-co-3-hydroxyvaleric acid), natural origin ..... [80181-31-3] [-COCH <sub>2</sub> CH(CH <sub>3</sub> )O-] <sub>x</sub> [-COCH <sub>2</sub> CH(C <sub>2</sub> H <sub>5</sub> )O-] <sub>y</sub> PHV content 8 wt. % Produced via a controlled fermentation process using microorganisms. Biodegradable polymer	10g 100g	32.40 207.80
40,312-1 Poly(3-hydroxybutyric acid-co-3-hydroxyvaleric acid), natural origin ..... [80181-31-3] [-COCH <sub>2</sub> CH(CH <sub>3</sub> )O-] <sub>x</sub> [-COCH <sub>2</sub> CH(C <sub>2</sub> H <sub>5</sub> )O-] <sub>y</sub> PHV content 12 wt. % Produced via a controlled fermentation process using microorganisms. Biodegradable polymer	10g 100g	32.40 207.80
19,206-6 Poly(2-hydroxyethyl methacrylate) [25249-16-5] [-CH <sub>2</sub> C(CH <sub>3</sub> )(CO <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> OH)-] <sub>n</sub> ..... d 1.150 FT-IR 1(2), 1194C R&S 1(2), 3167F Crystals. Average M <sub>v</sub> ca. 300,000	1g 10g 25g	13.20 57.00 113.80
18,213-3 Poly(2-hydroxypropyl methacrylate) [25703-79-1] ..... ★ (-CH <sub>2</sub> C(CH <sub>3</sub> )(CO <sub>2</sub> CH <sub>2</sub> CH(OH)CH <sub>3</sub> )-] <sub>n</sub> FT-IR 1(2), 1190C Safety 2,2877A R&S 1(2), 3165K Crystals	10g 25g	66.40 134.20
Poly(4-hydroxystyrene), see Poly(4-vinylphenol)		
44,668-8 Poly(indene-co-coumarone) [35343-70-5] d 1.140 Fp >230°F (110°C) ..... ★ Flake. Average M <sub>n</sub> ca. 735. 10 wt. % coumarone	1kg 3kg	18.50 41.40
44,669-6 Poly(indene-co-coumarone) [35343-70-5] ..... ★ Flake. Average M <sub>n</sub> ca. 1,090. 10 wt. % coumarone	1kg 3kg	18.50 41.40
19,195-7 Poly(isobornyl methacrylate) [64114-51-8] FT-IR 1(2), 1194B R&S 1(2), 3167E ..... ★ Beads. Average M <sub>w</sub> ca. 554,000 (GPC). Tg 110°. Solubility parameter 8.1	10g	42.60
18,145-5 Polyisobutylene [9003-27-4] [-CH <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub> -] <sub>n</sub> n <sub>D</sub> 1.5045 d 0.920 FT-IR 1(2), 1162B ..... Safety 2,2878B R&S 1(2), 3151N RTECS# UD1010000 Slab/chunk. Stabilized with 500 ppm 2,6-di- <i>tert</i> -butyl-4-methylphenol. Average M <sub>v</sub> ca. 420,000, M <sub>w</sub> ca. 500,000, M <sub>n</sub> ca. 200,000 (GPC/MALLS). Tg -76°. Tm 1.5°. Solubility parameter 7.7	100g 250g	46.30 80.70
18,146-3 Polyisobutylene [9003-27-4] [-CH <sub>2</sub> C(CH <sub>3</sub> ) <sub>2</sub> -] <sub>n</sub> ..... ★ Slab/chunk. Stabilized with 500 ppm 2,6-di- <i>tert</i> -butyl-4-methylphenol. Average M <sub>v</sub> ca. 1,200,000, M <sub>w</sub> ca. 1,000,000, M <sub>n</sub> ca. 600,000 (GPC/MALLS)	100g 250g	41.40 74.80



44,570-3



44,668-8



19,195-7